



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/575,599

04/13/2006

Nigel Hall

05579-00354-US

1576

23416 7590 06/06/2007  
CONNOLLY BOVE LODGE & HUTZ, LLP  
P O BOX 2207  
WILMINGTON, DE 19899

EXAMINER

POWERS, FIONA

ART UNIT

PAPER NUMBER

1626

MAIL DATE

DELIVERY MODE

06/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/575,599	HALL, NIGEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Fiona T. Powers	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 to 9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4 to 6, 8, 9 and 11 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/13/06</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

Art Unit: 1626

Receipt is acknowledged of the preliminary amendment and information disclosure statement filed April 13, 2006, which have been entered in the file.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, 5, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

When R<sup>1</sup> is -NCOR<sup>6</sup>, the valency of the nitrogen atom is not satisfied. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fishwick et al. (DE 2130992), cited by applicant.

The reference discloses the claimed dyestuff of the formula (I) and (Ie) where D is of the formula (IIa) wherein T<sup>1</sup> and T<sup>4</sup> are

Art Unit: 1626

nitro,  $T^2$  is hydrogen,  $T^3$  is halogen,  $R^1$  is acetylamino,  $R^7$  is methoxy,  $n$  is 0,  $s$  is 1,  $R^3$ ,  $R^4$  and  $R^5$  are hydrogen and  $R^2$  is substituted alkyl. Note Example 3. The dye is used for the dyeing of polyester textile material.

Claims 1, 6, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyd et al. (US 4119624), cited.

The reference discloses the claimed dyestuff of the formula (I) and (Ie) where D is of the formula (IIa) wherein  $T^1$  is nitro,  $T^2$  is halogen,  $T^3$  and  $T^4$  are hydrogen,  $R^1$  is acetylamino,  $R^7$  is hydrogen,  $n$  is 0,  $s$  is 1,  $R^3$ ,  $R^4$  and  $R^5$  are hydrogen and  $R^2$  is substituted alkyl. Note Example 5 and column 6, lines 9 to 45. The dye is used for the dyeing of polyester textile material.

Claims 1, 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Borovas (Chemical Abstracts, 102:26342, 1985), cited.

The reference discloses the claimed dyes of the formula (I) and (Ig) where D is of the formula (IIa) where  $T^1$  is  $NO_2$  or halogen,  $T^2$  is hydrogen or halogen,  $T^3$  is halogen or hydrogen and  $T^4$  is hydrogen or halogen,  $R^1$  is hydrogen,  $R^2$  is alkyl or substituted alkyl,  $R^3$  is hydrogen,  $n$  and  $s$  are 0 and  $R^5$  is hydrogen. Note the abstract and Registry Numbers 941-65-7, 94194-66-8 and 941194-67-9. The dyes are used to dye acrylic and polyester substrates.

Art Unit: 1626

Claims 1, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fishwick et al. (US 3097198), cited.

The reference discloses the claimed dyes of the formula (I) where D is of the formula (IIa) wherein  $T^1$  is  $\text{NO}_2$ ,  $T^2$  and  $T^3$  are hydrogen and  $T^4$  is cyano,  $R^1$ ,  $R^3$ ,  $R^4$  and  $R^5$  are hydrogen,  $R^2$  is alkyl or substituted alkyl. Note Examples 41 and 44. The dyes are used for the dyeing of polyester fibers.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson et al. (GB 2104088), cited by applicant.

Determination of the scope and content of the prior art (MPEP §2141.01)

The reference discloses structurally similar monoazo dyes which are used for the dyeing of hydrophobic fiber materials such as polyester. The dye of the reference is structurally similar to the claimed dye of the formula (I) and (Ic) where D is of the formula (IIa) wherein  $T^1$  and  $T^3$  are nitro,  $T^2$  is hydrogen and  $T^4$  is cyano,  $R^1$  is acetylamino,  $R^7$  is hydrogen,  $R^2$  is

Art Unit: 1626

alkyl,  $R^3$  is methyl, n is 0 and s is 1,  $R^4$  and  $R^5$  are hydrogen.

Note Example 20.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The dye of the reference differs from that claimed in that it is a homolog. The alkylene group between the oxygen and the cyano group is ethylene instead of methylene. However, it has been held that homologs are obvious over one another.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

One of ordinary skill in the art would have been motivated to make the claimed dyestuffs with the expectation that dyes with similar properties (e.g. food fastness to light, washing, sublimation, rubbing and dry cleaning) would be obtained. The claimed dyes would have been rendered obvious by the homolog of the reference in the absence of any unobvious property.

Claims 1, 4, 5, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishwick et al. (US 3097198) or Boyd et al. (US 4119624).

Determination of the scope and content of the prior art (MPEP §2141.01)

The reference discloses structurally similar monoazo dyes which are used for the dyeing of polyester fibers. The dyes of the references are structurally similar to the claimed dyes of the formula (I), (Ic) and (Id) where D is of the formula (IIa),  $R^1$  is hydrogen or acetylamino,  $R^2$  is alkyl or substituted alkyl, and one of  $R^3$ ,  $R^4$  and  $R^5$  is methyl and the others are hydrogen.

Art Unit: 1626

Note Examples 41 and 44 of Fishwick et al. and Example 5 of Boyd et al.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The dyes of the references differ from that claimed in that they are homologs. One of the groups which correspond to  $R^3$ ,  $R^4$  and  $R^5$  is hydrogen instead of methyl.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

One of ordinary skill in the art would have been motivated to make the claimed dyes with the expectation that dyes with similar properties would be obtained. The claimed dyes would have been rendered obvious by the homologs of the reference in the absence of any unobvious property.

Claims 2, 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The references made of record and not relied upon show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fiona T. Powers whose telephone number is 571-272-0702. The examiner can normally be reached on Monday - Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be

Art Unit: 1626

reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Fiona T. Powers  
Primary Examiner  
Art Unit 1626

ftp  
June 4, 2007